

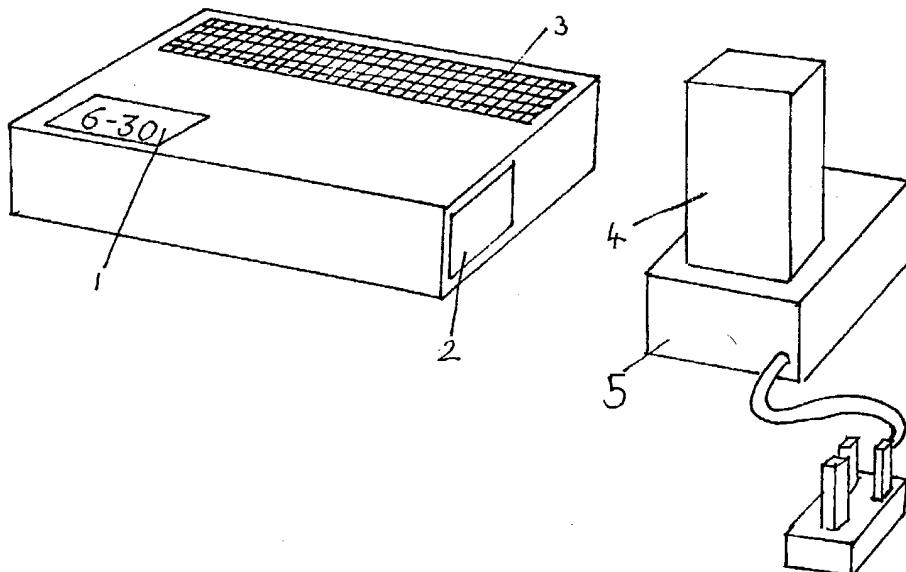
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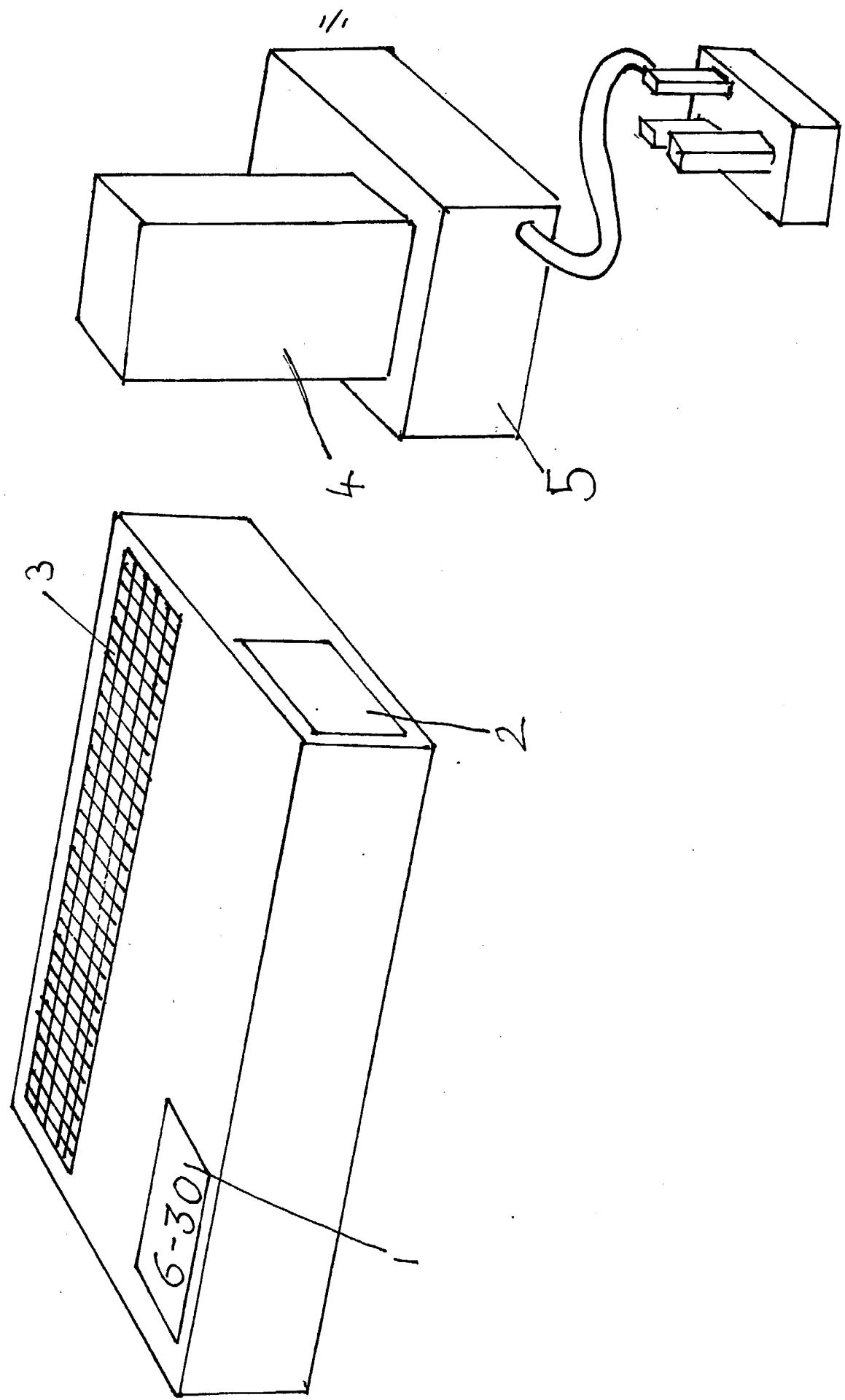
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(54) Portable battery powered heater

(57) Disclosed is a portable battery powered heater which is powered by its own battery 4 and is for use in defrosting vehicle windscreens. The heater may be placed on the dashboard of a vehicle and may include a timer having a separate battery. The heater may be remote controlled. A visual display 1 may be included and a panel 3 concealing a spare battery may also be provided. The heater may also include a fan to disperse the heat. A battery charger 5 may be used to charge the battery 4.



GB 2 291 699 A



Portable, battery powered,
car heater.

Technical Field.

This invention relates to a portable battery powered car heater.

Background.

This heater comprises a small portable unit which can be placed inside a car (e.g. on the dashboard) in order to clear the windscreen and other windows of frost/ice/snow etc. and ensure the car is warm when entered, this would keep the car warm until the car's own heater becomes effective.

Essential Technical Features.

1. This heater would be powered by a rechargeable (overnight) battery - charged by domestic electric supply.
2. There would be a separate battery for the clock/timer/remote display panel (fig 1)
3. The purpose of the timer - to enable the user to set the heater to become effective at the appropriate time before use of the vehicle e.g. 15 minutes before use of the vehicle.
4. The remote control can be used to operate the unit at any time from a distance (e.g. within home).
5. The heating unit is small and portable and may be easily used in any vehicle.

3

6 Two rechargeable batteries to be used in succession of each other.

Please refer to drawings :-

1. Clock / timer / remote control / visual display - operated by separate battery.
2. Panel concealing space to hold rechargeable battery.
3. Heating grill to cover heating source. (It is possible that a production model may include an electric fan to disperse heat.)
4. Battery.
5. Battery recharger. (overnight).
e.g. one 'on charge' while other is functional.

The Claims.

4

1. This portable, rechargeable battery powered vehicle heater does not rely on power from the vehicle.
2. The heater is controllable manually and by remote control. It may be 'pre-set' to 'come on' at the required time or at any time.
3. The rechargeable batteries are specifically for the use in electrical appliances e.g. These may already be found in use with rechargeable power drills etc.
4. This heater would be specifically designed to issue concentrated heat for short periods of time.

Patents Act 1977
 Examiner's report to the Comptroller under Section 17
 (The Search report) 5

Application number
 GB 9404993.9

Relevant Technical Fields

(i) UK Cl (Ed.M) F4S (S60A, S60B, S60C)
 (ii) Int Cl (Ed.5) F24H (3/00, 3/04); B60H (1/00, 1/22); B60S (1/54, 3/00)

Search Examiner
 T M JAMES

Date of completion of Search
 '4 JULY 1994

Databases (see below)

(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

(ii) ONLINE: WPI

Documents considered relevant following a search in respect of Claims :-
 1-4

Categories of documents

X:	Document indicating lack of novelty or of inventive step.	P:	Document published on or after the declared priority date but before the filing date of the present application.
Y:	Document indicating lack of inventive step if combined with one or more other documents of the same category.	E:	Patent document published on or after, but with priority date earlier than, the filing date of the present application.
A:	Document indicating technological background and/or state of the art.	&:	Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages		Relevant to claim(s)
X	US 5025130	(SLONE) see column 4 lines 27-44	1,3,4
X	US 4904844	(CHAMBERLIN) whole document relevant	1-4
A	US 4874921	(GERBIG) see column 4 lines 53-56	-
X	US 4350287	(RICHARDS) see column 2 lines 11-57	1-4
X	US 3870855	see column 2 lines 33-59	1,3,4
X	DE 3933040	(STEINBECK) see WPI Abstract Accession Number 91-110486	1,3,4 at least

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).